

## ***The Gut-Brain Axis in Health and Disease***

**Robert G. Silverman, DC, DACBN, DCBCN, MS, CCN, CNS, CSCS, CIISN, CKTP, CES, HKC, FAKTR**

Dr. Robert Silverman, the doctor's chiropractic doctor and laser therapy expert, leads you through an innovative demonstration showcasing the power of performance nutrition and conservative therapies on health and movement patterns. Utilizing interactive how-to's, he demonstrates an integrative approach to improved performance and recovery through an enhanced diet and accurate supplementation, laser therapy, functional movement assessment, corrective exercises and more.

To truly improve a patient's health and optimize active lifestyles, we need to understand how systems interact with one another. Dr. Silverman discusses the gut-to-brain axis, with special emphasis on understanding Alzheimer's and treating concussion for faster recovery.

Gut-brain axis is one of the most hotly debated topics in sports medicine today. Research surrounding these connections has experienced significant growth recently in the areas of incidence, assessment and recovery. However, the jury is still out as far as the most effective protocols go.

Join Dr. Silverman in this informative seminar to gain insight into a comprehensive methodology that incorporates proven protocols into a clinically effective system—one you can apply to your practice immediately.

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Dr. Robert Silverman is a chiropractic doctor, clinical nutritionist, national/international speaker, author of Amazon's #1 bestseller *"Inside-Out Health"*, founder and CEO of Westchester Integrative Health Ctr. The ACA Sports Council named Dr. Silverman "Sports Chiropractor of the Year" in 2015. He is on the advisory board for the Functional Medicine University and is a seasoned health and wellness expert on both the speaking circuits and within the media, as well as a frequent health expert contributor on national blogs such as Consumer Health Digest. He has appeared on FOX News Channel, FOX, NBC, CBS, ABC, The Wall Street Journal, NewsMax. He was invited as a guest speaker on "Talks at Google" to discuss his current book. A frequent published author in peer-reviewed journals and other mainstream publications, Dr. Silverman is a thought leader in his field and practice.

Dr. Silverman was the principle investigator on a Level 1 laser FDA study.  
His new book, *Superhighway to Health*, is expected to be published in February 2020.

### **Key clinical takeaways:**

- ☐ Hands-on reproducible, implementable protocols for your practice success
- ☐ Apply neurodynamic tests and corrective laser protocols
- ☐ Assess and understand traumatic brain injuries (concussion, neurodegenerative diseases)
- ☐ Strategies to initiate the positive impact of gut health on the musculoskeletal system
- ☐ Building the Ultimate Back: from chronic back pain to high performance
- ☐ Clinical breakthroughs in the treatment of musculoskeletal injuries
- ☐ New laser research and its clinical applicability
- ☐ Expertly assess intestinal and blood-brain dysfunctions
- ☐ Demonstrations of laser applications and case studies

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**Learn science-based clinical protocols for the management of symptoms and conditions such as:**

- Traumatic brain injuries/concussion
- Lumbar disc degeneration/sciatica
- Tennis/golfer's elbow
- Plantar fasciitis
- Ankle sprain
- Peripheral nerve entrapments
- Cell membrane health
- Leaky gut/leaky brain
- Vagus nerve protocol and applicability

**Attendees will receive:**

- Clinical protocols and pearls based on case studies
- An up-to-date syllabus with graphics and take-home notes
- An information-packed day guaranteed to expand your clinical knowledge
- Doctor laser flowcharts and nutritional protocols

**9:00-9:30 am                      Registration**

**9:30-10:00 am                      Pathogenesis of cumulative trauma disorder**

- Pathogenesis of the cumulative (repetitive) trauma disorder:
  - Explanation of the effect of successive trauma recurring before complete tissue recovery or adaptation can occur
  - Net result is cumulative trauma
- NMS (neuromusculoskeletal) detonation sequence:
  - Pain dynamic – tight muscle leads to a strain point (which is usually a joint)
  - Discussion of Sherrington's Law of reciprocal inhibition
  - Posture analysis
- Leading to musculoskeletal breakdown at an increasing rate

**10 00-10:45 am                      Laser research and its clinical applications**

- Basic anatomy and function of vagus nerve
- Vagus nerve's effects on reduction of inflammation
- Vagus nerve's role in bi-directional communication between the gut/brain axis

### **Laser**

- How it works
- Long term effects
- Effects on Pain relief

**10:45-11:00 am                      Break**

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### **11:00-12:00 pm      Clinical breakthroughs in the treatment of musculoskeletal injuries:**

- Ankle sprain
- Rotator cuff injuries/shoulder impingement
- Plantar fasciitis (Baxter's neuropathy)
- Golfer's/tennis elbow
- Lumbar disc degeneration/sciatica
- Carpal tunnel
- Shin splints
- Hip injuries/labrum
- Knee injuries

Anatomy biomechanics of the joint differential diagnosis. Review of causes of injury, ortho/neuro tests, injury treatments, protocols including laser, exercise, rehab, nutrition, taping. Patient case studies for each of the conditions will be reviewed.

### **12:00-12:30 pm      Building the Ultimate Back: from chronic back pain to high performance:**

- a. Dispel the myths about how the spine works and becomes injured
- b. Reducing the risk of injury
- c. Rehabilitative exercise
- d. Training for performance

### **12:30-1:30 pm      Lunch**

### **1:30-2:30 pm      Dr. Rob's Gut Matrix**

The evolving field of gut health is one of the most exciting developments in Functional Nutrition. In this module, attendees will get a solid understanding of the gut microbiome and its importance:

- New insights into how our microbial community affects health and disease.
- Nutritional strategies for gut health (7R Program).
- Gut reaction: restoring digestive health through nutrition.

#### **Strategies to initiate the positive impact of gut health on the musculoskeletal system:**

- Basic physiology and nutritional support for a musculoskeletal injury
- Medicine's new direction—how injuries to fascia and extracellular matrix are key components in describing disease etiology

### **2:30-3:00 pm      Neurodynamic tests – assessment of sensitivity of whole nervous system and practical breakdown of each nerve with laser protocols to turn the individual nervous and/or nervous system.**

- Assess and treat:
  - Brachial plexus

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- Median nerve
- Ulnar nerve
- Radial nerve
- Sciatica nerve
- Tibial nerve
- Lateral plantar nerve
- Recurrent median nerve

Nerve-flossing exercises – demonstration of exercise that play an integral role in neurological recovery

### **3:00-3:45 pm Hands-on and laser workshop**

Algorithms using laser therapy and its application during the correlated stages of healing

- Acute-phase
- Sub-acute phase
  - Repair & remodeling
- Chronic
- Wellness
- Prevention
- Up-regulation of peripheral nervous system
- Symptoms, treatment objectives, frequency and timing of application
- Case studies

### **3:34-4:00 pm Break**

### **4:00-6:00 pm Traumatic Brain Injuries/Concussions/Brain Health**

#### **Traumatic brain injuries – Concussions**

Traumatic brain injuries are on the rise:

- Research review on treatments for TBI
- Concussion assessments and protocols

#### **Why More Concussions**

Diminished brain resilience syndrome:

- Toxins
- Poor dietary fats
- Poor liver function and gut bacteria

#### **How to Assess a Concussion**

- What's a concussion?
- 3-grade system
- Signs and symptoms
- Balance assessment:
  - Clinical test of sensory integration of balance

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**Hands-on demonstration of rehab and cognitive assessments/treatment for concussion injuries**

### **Nutritional Protocol for Treating Concussion**

- Feed your concussion: Reviewing nutrition and its role in brain recovery
- Dietary changes required for concussion recovery
- Support for the production of BDNF (brain-derived neurotrophic factor)
- Support for decrease of neurotransmitter substance-P
- Decrease of systemic inflammation
- Brain to gut connection
- GI restoration protocols
- Methylation and concussion

### **Gut to Brain Axis in Concussion**

- Gut to brain axis bidirectional communication flows along neural pathways using signaling molecules including cytokines, hormones and neuropeptides
- Blood test for concussions
- Blood-brain barrier permeability tests

### **Concussion Rehab**

- Proprioceptive training
- Gaze stabilization
- Vestibular oculomotor screen
- Post-concussion syndrome
- Laser motion guidance